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principle will apply to sociology and history, and to theoretical and historical economics.

That line of study which is ordinarily called economic theory differs from economic history, not in the methods of reasoning employed, but in the source of information. The one goes directly to the facts of the social and economic life of the surrounding world, while the other goes to historical documents. The one observes phenomena at first hand, the other through the media of historical records of all kinds. The distinction between the theoretical and the descriptive economist is that the one tries to find the causal connection between economic facts which come under his observation, while the other merely tries to describe them. Until one has some elementary notions regarding economic causation he is not in a position even to begin the study of economic history. He would see no more connection between a rise of British consols and Napoleon's defeat at Waterloo than he would see between Napoleon's defeat and an eclipse of the moon. But an opinion regarding economic causation is an economic theory.

What economists and historians need, therefore, is not an opinion as to the relative importance of the various factors which have determined the course of history, but a clear perception of the importance of a first-hand study of the factors and forces in the contemporary social world. Following the suggestion of the anti-cataclysmic theory of geological and biological development, the present writer would like to lay down the following thesis as a challenge :

Every great historical epoch, and every variety of social organization, must be explained on the basis of factors and forces now at work, and which the student may observe at first hand.

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THE WAGE-EARNERS IN THE MANUFACTURING AND MECHANICAL INDUSTRIES OF THE NORTHWESTERN STATES.¹

THE six northwestern states—Iowa, Minnesota, Montana, North Dakota, South Dakota, and Wisconsin—which form the subject of this discussion, have been divided into two separate groups. Three states—Iowa, Minnesota, and Wisconsin—form the first group. They have

¹ From returns at the Twelfth United States Census, 1900.

passed from frontier conditions into the ranks of industrial states, with industries well defined and offering steady employment so as to allow of comparison being made between them. The second group is composed of Montana and the two Dakotas. Conditions which affect the wage-earners here are different. The manufacturing industries of these states are chiefly such as are incidental to mining and the development of agricultural resources. They are not manufacturing states in the true significance of the term, yet wage conditions have been produced worthy of consideration.

The population of the United States during the decade 1890-1900 increased 20.7 per cent. The average number of wage-earners engaged in manufacturing and mechanical industries gained 25.2 per cent. and the amount paid for wages increased 23.2 per cent. of the sum expended for this purpose in 1890. The northwestern states have shared in this general progress of the country. Montana had the largest per cent. of increase in its population, which was 75.2, and that of North Dakota was 70.9 per cent. Minnesota gave evidence of its healthy growth by adding 33.8 per cent. to its inhabitants, Wisconsin 22.3 per cent., and South Dakota and Iowa 16.8 and 16.7 per cent. respectively. Table I shows an increase of 18.4 per cent. during the decade, in the number of wage-earners for Wisconsin, while Iowa increased 14.7 and Minnesota 10.7 per cent. Wisconsin led the other two states of this group. The wage-earners of Wisconsin, in 1900, represented 6.9 per cent. of its total population, and the corresponding figures for Minnesota and Iowa were 4.4 and 2.6 per cent. respectively. Montana showed the remarkable increase of 324 per cent. in its wage-earners, which composed 4.2 per cent. of the state population. North and South Dakota gained 60.0 and 55.2 per cent. respectively, and the industrial knights represented in both states 0.8 per cent. of the entire population. Minnesota had 54 and Iowa had 41 wage-earners for each 100 in Wisconsin, and South Dakota had 31 and North Dakota 24 for each 100 in Montana.

LEADING INDUSTRIES.

Eleven leading industries have been given for Iowa in 1900, the same number for Minnesota, and twenty for Wisconsin. Iowa had 46.3 per cent. of all wage-earners employed in these leading industries, Minnesota had 46.6 and Wisconsin 64.5 per cent. The industry ranking first in Iowa, with reference to the number of wage-earners and amount paid for wages, was car and shop construction and repairs by

steam railroads. A percentage of 11.4 of all wage-earners were engaged in this mechanical branch, while the same work required only 6.1 per cent. of all wage-earners in Minnesota and 3.2 per cent. in Wisconsin. In Minnesota the industry devoted to the manufacture of lumber and timber products furnished work to the largest per cent. of all wage-earners. It was there 19.6, as against 15.3 per cent. in Wisconsin and 5.8 in Iowa. The same industry also led in Wisconsin with reference to largest number of wage-earners. Iowa had one industry with more than 5,000 wage-earners; Minnesota had one with over 5,000 and one with over 15,000 wage-earners. Three of Wisconsin's industries had over 5,000, one over 10,000, and one over 20,000 wage-earners. The leading industry of Montana, with reference to the number of wage-earners, amount of wages paid and value of investments, as well as value of products, is smelting and refining of ores. Copper-smelting and refining provided for 42.4 per cent. of all wage-earners, and 11.7 per cent. were engaged in the manufacture of lumber and timber products. Cars and general shop construction and repairs by steam railroads required 6.1 per cent., lead-smelting and refining 5.5 per cent., foundry and machine-shop work 5.4, and the printing and publishing trades 4.4 per cent. The manufacturing industries of the two Dakotas are largely confined to such products as are consumed at or near the point of production. The printing and publishing trade in both states furnished employment to the largest per cent. of all wage-earners. It was 15.9 in North Dakota and 14.9 in South Dakota. The former had 12.4 per cent. engaged in flour and grist-milling, against 9.5 per cent. in South Dakota.

Table II contains a classification of wage-earners for the two census years. Table III shows the relation of women wage-earners to male wage-earners for the same periods and that of children under 16 years to adults. Table IV presents the same data for all states excepting Pennsylvania and South Carolina for the last census year, and Table V exhibits a summary of the wage-earners of the six states in specified industries in 1900.

WOMEN WAGE-EARNERS.

A material increase in the number of female wage earners, proportionately, over that of male wage-earners, for the decade, is shown by Table III and suggests that either such industries as are specially adapted for woman's work have more rapidly developed than others, or that women have crowded the stronger sex out of many places that

formerly were claimed by them. The greatest change for the first group of states occurred in Minnesota, with Iowa and Wisconsin following in the order named. North Dakota, on the other hand, had a proportionate decrease in women wage-earners. Clothing factories in Iowa furnished employment to 15.0 per cent. of all women wage-earners, and the corresponding figures for Minnesota and Wisconsin were 20.0 and 12.0 respectively. Iowa had 15.1 per cent. of all its women engaged in millinery custom work, as against 6.9 in Minnesota and 6.7 in Wisconsin. The per cent. for the printing and publishing trades was as follows; 9.1 for Iowa, 5.1 for Minnesota and 3.5 for Wisconsin; for tobacco and cigar manufactories, it was 6.8 for Iowa, 3.6 for Minnesota, 2.4 for Wisconsin. Minnesota employed 17.4 per cent. of its female wage-earners in dressmaking. The corresponding figures for Iowa and Wisconsin were 9.1 and 4.5 respectively. Boot and shoe manufacturing furnished work for 5.9 per cent. in Minnesota, 2.8 in Iowa, and 2.2 in Wisconsin. Minnesota had also 5.1 per cent. engaged in fur work and 3.0 per cent. in bakeries, 2.7 per cent. in confectioneries, 1.2 per cent. in woolen mills, and 1.5 per cent. in flour and grist mills. Wisconsin had 10.6 per cent. of all female wage-earners employed in hosiery and knitting mills, 4.8 per cent. in paper and wood-pulp mills, 2.4 per cent. in woolen mills, 2.2 per cent. in confectioneries, 1.9 per cent. in breweries, and the same per cent. in bakeries. Bookbinding, enameling, and various other industries also furnished work to women wage-earners.

The per cent. of the total number of women wage-earners for the second group of states was as follows:

		Montana,	N. Dakota.	S. Dakota.
Dressmaking, custom work	- - -	33.1	18.1	27.5
Millinery, custom work	- - -	20.2	20.7	26.4
Printing and publishing	- - -	11.2	20.7	24.2
Bread and bakery products	- - -	10.1	4.7	....

CHILD LABOR.

The employment of children in manufacturing and mechanical industries is a matter of grave importance and deserving of earnest consideration. Child labor, of necessity, will affect the conditions under which adults have to work, and to some degree also will affect their chances for wages. It is but fair to assume that in the same measure as females replaced men as factory workers, so child labor, if not restricted, will crowd a proportionate number of adults out of employment. Child labor, therefore, is not desirable and should be

restricted. The standing of an industrial community is indicated by the large or small number of children which it presses into the ranks of its industrial profit-makers.

Table IV shows that child labor in North Carolina in 1900 had assumed the horrifying proportion of 1 child to 5.7 adults. This, and child labor of other southern states, has reduced the proportionate relation for the United States to 1 child for each 30.6 adults, notwithstanding that quite a number of states with highly developed industries, but with very effective child-labor laws, showed a very commendable relation between child and adult labor. Minnesota had the lowest proportionate number of children to adults for the six states under discussion. It was 1 child to 96.5 adults in 1900 and 1 to 90.8 adults in 1890. This denotes a condition which its citizens should strive to preserve, for it bears with it a great blessing for the young generation. They are much more fortunate than the many other children in other states who have to enter upon factory life at a time when they should build up their bodies and brains for the great struggle of life. Child labor remained proportionately stationary in Iowa during the decade. It was 1 child to 30.0 adults, but the increase in Wisconsin was very marked. It was 1 child to 61.0 adults in 1890, and went down to 1 child to 24.0 adults in 1900. Child employment in the second group of states in its aggregate was but small, yet the increase during the decade is quite observable for all three states.

Of 118 specified industries in Iowa, child labor has been shown in 68. Minnesota had child labor in 65 out of 136 industries, and Wisconsin in 101 out of 155 industries. The total number of children employed in 1900 was 1,888 in Iowa, 792 in Minnesota, and 5,679 in Wisconsin. In industries most conspicuous for child labor their per cent. of the total number was as follows:

	Iowa.	Minnesota.	Wisconsin.
Boots and shoes, factory product	- - - - -	3.6	2.7
Boxes, wooden packing	- - - - -	2.1	...
Brick and tile	- - - - -	2.3	4.3
Foundry and machine-shop products	- - - - -	3.3	...
Fruit and vegetable canning	- - - - -	5.1	...
Furniture, factory product	- - - - -	3.7	...
Lumber and timber products	- - - - -	5.9	4.8
Lumber and planing mill, sash, door and blind manufacturing	- - - - -	2.4	...
Printing and publishing trades	. - - - -	26.2	30.6
Tobacco, cigars, etc.	- - - - -	9.2	7.1

Aside from industries enumerated, there were 3.9 per cent. of all children in Iowa employed in button factories and 11.3 per cent. in slaughtering and meat-packing establishments. Minnesota had 10.1 per cent. in clothing factories, 2.8 per cent. in confectioneries, 4.5 per cent. in hosiery and knitting mills, and 2.7 per cent. in woolen mills. Wisconsin had 3.1 per cent. in confectioneries, 11.0 in hosiery and knit goods mills, 7.4 per cent. in breweries, and 2.9 in trunk and valise manufactories. The following tabulation has been prepared with a view of facilitating a comparison between the different states with reference to the number of children and adults employed in industries most conspicuous for child labor:

INDUSTRIES.	IOWA.		MINNESOTA.		WISCONSIN.	
	Total Average Number.	Childr'n under Sixteen Years.	Total Average Number.	Childr'n under Sixteen Years.	Total Average Number.	Childr'n under Sixteen Years.
Boots and shoes, factory product	566	67	2,025	21	2,507	164
Boxes, wooden packing.....	363	40	232	...	1,290	190
Bread and other bakery products	846	25	972	12	1,329	129
Carriages and wagons.....	1,692	5	1,066	6	3,402	38
Clothing, men's, factory product	1,340	15	1,716	80	2,327	59
Confectionery	559	3	485	22	749	175
Foundry and machine shop products	2,372	62	3,139	6	12,670	285
Fruit and vegetable-canning..	699	112	45	2	676	102
Furniture, factory product	850	60	1,148	5	7,775	556
Hosiery and knit goods.....	....	...	293	36	2,722	625
Liquors, malt.....	321	4	856	...	3,904	420
Lumber and timber products..	2,793	111	15,140	38	21,701	437
Lumber, planing mill, sash, door, etc.....	2,372	46	1,639	10	4,377	276
Printing and publishing trades	4,248	495	3,788	242	3,395	237
Tobacco, cigars, cigarettes, etc.	1,856	154	1,562	56	2,269	147
Trunks and valises.....	17	1	60	...	1,083	163
Slaughtering and meat-packing	2,874	215	627	9	1,361	...
Woolen goods.....	256	2	300	21	861	73

We stated already that child labor in its aggregate had been but small in the three states of the second group. Montana had 24.2 per cent. of the total in copper-smelting and refining, 29.1 per cent. in printing and publishing trades, and 13.4 per cent. in cigar factories. In North and South Dakota child labor was confined to the so-called hand trades, including printing and publishing, which occupied 86.0 of all children employed in South Dakota.

TABLE I.
Wage-earners engaged in manufactures.

STATES.	WAGE-EARNERS, AVERAGE NUMBER.		PER CENT. OF TOTAL POPULATION.		Per Cent. of Increase.
	1890.	1890.	1890.	1900.	
Iowa	51,037	58,553	2.7	2.6	14.7
Minnesota	69,790	77,234	5.4	4.4	10.7
Montana	2,386	10,117	1.8	4.2	324.0
North Dakota.....	1,499	2,398	0.8	0.8	60.0
South Dakota	2,011	3,121	0.6	0.8	55.2
Wisconsin	120,006	142,076	7.1	6.9	18.4

TABLE II.
Classification of wage-earners.

STATES.	1890.			1900.		
	Men.	Women	Children under Six- teen Years.	Men.	Women.	Children under Six- teen Years.
Iowa	44,210	5,183	1,644	48,417	8,248	1,888
Minnesota	63,522	5,508	760	66,889	9,553	792
Montana	2,300	75	11	9,718	287	112
North Dakota	1,398	85	16	2,168	193	37
South Dakota	1,846	129	36	2,776	231	114
Wisconsin	105,320	12,751	1,935	120,131	16,266	5,679

TABLE III.
Relation of child-employees to adult wage-earners, and of women wage-earners to male wage-earners.

STATES.	1890.		1900.	
	No. of Adult Wage-Earners Employed to Each Child under Sixteen Years.	No. of Male Wage-Earners Employed to Each Female Wage-Earner.	No. of Adult Wage-Earners Employed to Each Child under Sixteen Years.	No. of Male Wage-Earners Employed to Each Female Wage-Earner.
Iowa	30.2	8.5	30.0	5.9
Minnesota	90.8	11.5	96.5	7.0
Montana	215.9	31.2	89.3	33.9
North Dakota	92.7	16.4	63.8	11.2
South Dakota	54.9	14.3	26.4	12.0
Wisconsin	61.0	8.3	24.0	7.4

TABLE IV.

Relation of women wage-earners to male wage-earners and of children under sixteen years to adults in forty-six¹ states.

STATES.	1900.		STATES.	1900.	
	No. of Male Wage-Earners Employed to one Woman Wage-Earner.	No. of Adults Employed to One Child under Sixteen Years.		No. of Male Wage-Earners Employed to one Woman Wage-Earner.	No. of Adults Employed to One Child under Sixteen Years.
United States.....	3.9	30.6	Missouri.....	4.5	28.9
Alabama.....	11.7	14.2	Montana.....	33.9	89.3
Arizona.....	75.9	85.0	Nebraska.....	8.0	30.5
Arkansas.....	35.9	40.2	Nevada.....	31.3	29.1
California.....	4.1	42.1	New Hampshire.....	2.1	41.6
Colorado.....	11.9	100.7	New Jersey.....	3.5	29.0
Connecticut.....	30.6	49.8	New Mexico.....	34.7	88.6
Delaware.....	4.9	24.8	New York.....	2.6	63.4
Florida.....	21.0	98.2	North Carolina.....	2.5	5.7
Georgia.....	6.1	12.1	North Dakota.....	11.2	63.8
Idaho.....	23.6	63.2	Ohio.....	5.4	78.2
Illinois.....	5.5	36.9	Oklahoma.....	13.4	53.1
Iowa.....	5.9	30.0	Oregon.....	8.3	57.4
Indiana.....	6.9	41.4	Rhode Island.....	2.4	18.2
Kansas.....	9.9	39.9	South Dakota.....	12.0	26.4
Kentucky.....	5.6	22.4	Tennessee.....	8.1	21.9
Louisiana.....	6.5	33.3	Texas.....	15.2	45.2
Maine.....	2.1	33.0	Utah.....	6.8	29.3
Maryland.....	2.5	17.4	Vermont.....	5.3	111.0
Massachusetts.....	2.4	38.6	Virginia.....	4.6	14.0
Michigan.....	5.9	60.6	Washington.....	26.6	126.6
Minnesota.....	7.0	96.5	West Virginia.....	8.6	38.4
Mississippi.....	13.7	24.2	Wisconsin.....	7.4	24.0
			Wyoming.....	46.4	148.0

WAGES.

Table VI presents a summary of wages paid in each of the six states for the two census years, with per cent. of increase. Table VII shows the annual average wage rate for men, women, and children, and in Table VIII the average weekly wages, for all classes of labor in specified industries, for the year 1900, has been computed. An increase of 36.0 per cent. in total wages during the decade has been noted for Wisconsin, as against 17.1 per cent. for Iowa and 16.8 per cent. for Minnesota. Montana had an increase of 382.3, South Dakota 85.5, and North Dakota 61.0 per cent. Before entering upon consideration of annual and weekly average wages for each individual (men, women,

¹ Reports from Pennsylvania and South Carolina not available.

and children), it may be well to explain by what operation these figures have been arrived at. The census reports furnished the amount paid out for wages in all industries for both census years, as well as for specified industries in 1900 and the average number of wage-earners (men, women, and children). The numbers given for each class of wage-earners were used as a divisor into the total amount of wages for this class, the quotient being the annual average wage for each wage-earner. By using 52 as divisor (the number of weeks for the year) into the annual wages, the average per week for each wage-earner was obtained. It must, however, be remembered that these figures can serve only for the purpose of comparison between different industries and for different states; and that they embrace all classes and grades of wage-workers, regardless of skill and personal amount received as labor compensation. Skilled laborers and mechanics have received higher wages than common laborers. Of this the census has not taken cognizance, and the figures merely denote the average amount earned by each wage-earner in a certain industry.

The increase in the annual average wages during the decade, for each class of wage-earners, was as follows :

	For Men.	For Women.	For Children.
Iowa.....	\$17.00	\$21.00	\$23.00
Minnesota	40.00	30.00	32.00
Wisconsin.....	67.00	27.00	34.00
Montana.....	109.00	235.00 (decrease)	34.00
North Dakota.....	11.00	25.00	44.00 (decrease)
South Dakota	99.00	19.00 (decrease)	34.00

The proportionate compensation for performed labor in the two groups of states was as follows :

	MEN.		WOMEN.		CHILDREN.	
	1890.	1900.	1890.	1900.	1890.	1900.
Wisconsin.....	\$1.00	\$1.00	\$1.00	1.00	\$1.00	\$1.00
Iowa.....	1.14	1.01	1.01	.98	.98	.91
Minnesota.....	1.18	1.10	1.50	1.18	1.05	1.03
Montana.....	1.00	1.00	1.00	1.00	1.00	1.00
North Dakota.....	.75	.66	.47	.85	.73	.44
South Dakota.....	.62	.66	.44	.68	.43	.54

TABLE V

Wage-earners in specified industries

INDUSTRIES.	AVERAGE NUMBER OF WAGE-EARNERS						Men	Women		
	Iowa.			Minnesota.						
	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.				
All industries.....	48,417	8,248	1,888	66,889	9,553	792	718	....	
Agricultural implements.....	641	1	2	924	3	1	7	....	
Bicycle and tricycle repairing.....	103	....	4	203	4	5	....	....
Bicycles and tricycles.....	....	....	....	47	....	....	....	....
Blacksmithing and wheelwrighting.....	1,162	....	15	818	....	9	114	....	
Bookbinding and blank book-making.....	21	25	4	105	55	1	....	....
Boots and shoes, factory product.....	272	227	67	1,438	566	21	....	....
Boxes, wooden, packing.....	303	20	40	232	....	....	....	....
Bread and other bakery products.....	564	257	25	674	286	12	66	....	
Brick and tile, pottery, terra cotta, and fire-clay products.....	2,175	1	44	1,232	10	34	223	....	
Carpentering.....	....	....	....	3,099	1	3	209	....	
Carriages and wagons.....	1,655	32	5	1,952	8	6	34	....	
Cars and general shop construction and repairing by railroads.....	5,488	4	5	4,696	1	3	621	....	
Cheese, butter, and condensed milk, factory products.....	1,009	22	12	724	7	0	....	....
Clothing, men's and women's, factory products.....	151	1,239	15	154	1,093	85	....	....
Clothing, women's dressmaking.....	21	753	1	61	1,664	6	1	....	
Conffectionery.....	249	307	3	202	261	22	10	....	
Cooperage.....	421	1	18	605	2	8	....	....
Copper smelting and refining.....	....	....	....	....	....	....	4,258	....	
Enameling and enameled goods.....	....	....	....	13	....	....	....	....
Flouring and grist-milling.....	1,224	49	12	3,936	147	3	17	....	
Foundry and machineshop products.....	2,296	14	62	3,121	12	6	148	....	
Fur goods.....	9	56	....	347	492	8	....	....
Furniture, factory products.....	766	24	60	1,138	5	5	....	....
Hosiery and knit goods.....	....	....	....	51	206	36	....	....
Iron and steel.....	....	....	....	409	....	....	....	....
Ironwork, architectural and ornamental.....	187	....	2	435	1	....	....	503
Lead smelting and refining.....	....	....	....	....	....	....	....	....
Leather, tanned, curried, and finished.....	....	....	....	18	....	....	....	....
Liquors, malt.....	317	....	4	843	13	....	181	....	
Lumber and timber products.....	2,677	5	111	15,087	15	38	1,190	....	
Lumber, planing-mill products, including sash, doors and blinds.....	2,326	....	46	1,627	2	10	48	....	
Marble and stone work.....	344	....	8	1,306	....	5	8	....	
Masonry, brick and stone.....	1,123	....	1	2,540	....	2	155	....	
Mattresses and spring beds.....	38	11	....	177	35	2	....	....
Millinery, custom work.....	5	1,244	9	20	658	10	....	....
Painting, house, sign, etc.....	762	2	2	1,159	3	6	72	....	
Paper and wood pulp.....	132	28	20	....	....	....	....	....
Plumbing and gas- and steam-fitting.....	724	2	3	1,107	....	4	146	....	
Printing and publishing, newspaper, books, job, etc.....	3,001	752	495	3,055	491	242	420	65		
Saddlery and harness.....	1,210	9	11	850	29	5	....	....
Slaughtering and meat-packing, wholesale.....	2,643	29	215	650	9	9	35	....	
Tinsmithing, coppersmithing, and sheet-metal working.....	803	41	8	1,135	126	5	72	....	
Tobacco, cigars, cigarettes, chewing, smoking, and snuff.....	1,143	559	154	1,161	345	56	55	....	
Trunks and valises.....	16	....	1	60	....	....	....	....
Woodenware not elsewhere specified.....	....	....	....	....	....	....	....	....
Woolen goods.....	126	128	2	160	119	21	....	....

TABLE V

in specified industries, 1900.

AGE NUMBER F WAGE-EARNERS.

Children under Sixteen Years.	Montana.			North Dakota.			South Dakota.			Wisconsin.		
	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Year.	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.
792	718	287	112	2,168	193	37	2,776	331	114	120,131	16,266	5,679
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,276	.....	13
1	7	.....	1	21	.....	.....	11	.....	.....	130	2	12
5	.....	.....	.....	.....	.....	.....	9	.....	.....	1,500	1	71
9	114	.....	2	188	.....	2	121	.....	.....	932	.....	8
1	.....	.....	.....	.....	.....	.....	24	5	.....	246	254	65
21	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,494	849	164
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,064	36	190
12	66	29	1	28	9	.....	24	2	.....	881	319	129
34	223	1	2	101	3	4	48	.....	.....	1,418	1	60
3	209	.....	.....	142	.....	.....	236	.....	.....	3,450	2	2
6	34	.....	.....	23	.....	.....	23	.....	.....	3,317	47	38
3	621	.....	.....	126	.....	.....	117	.....	.....	4,499	3	.....
9	2	.....	.....	13	.....	.....	147	.....	.....	1,742	25	13
85	.....	.....	.....	.....	.....	.....	.....	.....	.....	540	1,981	59
6	1	95	2	.....	35	.....	.....	63	.....	22	729	14
22	10	10	2	.....	.....	.....	10	5	1	216	358	175
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,010	.....	37
.....	4,258	4	28	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	17	.....	.....	298	.....	.....	.....	.....	.....	1,008	288	.....
6	148	.....	2	36	.....	.....	294	.....	.....	1,398	10	4
8	.....	.....	.....	.....	.....	.....	19	.....	.....	12,305	20	285
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	194	250	5
36	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,940	279	556
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	341	1,756	625
.....	503	.....	.....	.....	.....	.....	.....	.....	.....	1,021	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	688	.....	10
38	181	.....	12	.....	.....	.....	58	.....	3	5,166	29	67
10	1,190	1	1	12	.....	.....	181	.....	.....	3,178	306	420
48	48	.....	1	.....	.....	.....	15	.....	.....	21,181	83	437
5	.....	.....	.....	.....	.....	.....	112	.....	.....	4,095	6	276
2	155	.....	.....	132	.....	.....	84	.....	.....	506	.....	.....
10	58	.....	.....	.....	40	1	.....	61	1	1,805	1	2
6	72	1	70	.....	.....	.....	41	.....	9	937	85	23
4	146	.....	.....	85	.....	.....	72	.....	1	1,394	1	3
242	420	32	33	314	40	28	311	56	1	3,437	775	28
5	65	2	.....	134	.....	.....	99	.....	.....	1,253	2	10
9	35	2	.....	33	1	.....	.....	.....	.....	1,359	2	.....
5	72	.....	.....	66	.....	.....	78	.....	.....	1,278	82	93
56	55	2	15	29	2	2	115	9	5	1,731	391	147
21	.....	.....	.....	.....	.....	.....	.....	.....	.....	762	158	163
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,004	.....	43
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	396	392	73

TABLE VIII

Average weekly wages paid in specified

INDUSTRIES.	Iowa.			Minnesota.			Montana	
	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.	Men.	Women.
All industries.....	.69	\$4.12	\$2.75	\$9.46	\$4.94	\$3.10	\$15.52	\$6.71
Agricultural implements.....	7.27	8.10	4.81	8.77	8.33	2.25	.....	.....
Bicycle and tricycle repairing.....	7.87	.....	2.65	7.90	5.77	3.12	13.60	.....
Bicycles and tricycles.....	.....	.....	.....	.....	.....	.....	.....	.....
Blacksmithing and wheelwrighting.....	8.29	.....	2.40	9.08	.....	3.79	15.27	.....
Bookbinding and blank book making.....	8.94	4.25	2.94	11.94	5.52	2.77	.....	.....
Boots and shoes, factory products.....	8.17	5.54	3.04	7.17	6.10	2.58	.....	.....
Boxes, wooden, packing.....	6.79	2.12	3.37	5.96	.....	.....	.....	.....
Bread and other bakery products.....	9.56	3.73	4.81	9.46	3.98	4.25	14.04	4.27
Brick and tile, pottery, terra cotta, and fire-clay products.....	7.56	6.92	3.46	7.39	4.19	3.21	12.92	6.73
Carpentering.....	.....	.....	.....	9.98	5.00	4.75	18.79	.....
Carriages and wagons.....	8.19	4.48	6.77	8.35	7.21	6.56	19.4	.....
Cars and general shop construction and repairs by railroads.....	10.33	6.17	6.35	10.63	6.00	4.60	12.31	.....
Cheese, butter, and condensed milk, factory products.....	10.19	4.33	2.41	10.50	4.29	3.17	10.58	.....
Clothing, men's and women's, factory products.....	8.75	3.77	2.31	13.35	4.90	4.85	.....	.....
Clothing, women's, dressmaking.....	8.88	3.00	1.85	15.40	4.67	1.85	25.00	5.46
Confectionery.....	7.39	3.10	3.27	7.71	3.54	2.54	19.50	7.89
Cooperage.....	7.44	4.81	3.04	9.87	4.81	5.13	.....	.....
Copper smelting and refining.....	.....	.....	.....	.....	.....	.....	17.06	10.10
Enameling and enameled goods.....	.....	.....	8.33	.....	.....	.....	.....	.....
Flouring and grist mill products.....	8.04	5.33	1.27	11.40	6.60	2.89	14.89	.....
Foundry and machine shop products.....	9.02	2.92	2.83	9.29	7.27	2.87	17.87	.....
Fur goods.....	13.89	5.75	.....	9.77	5.58	2.79	.....	.....
Furniture, factory products.....	6.90	5.14	3.46	7.58	8.65	3.75	.....	.....
Hosiery and knit goods.....	.....	.....	.....	7.00	5.00	2.75	.....	.....
Iron and steel.....	.....	.....	.....	8.23	.....	.....	.....	.....
Ironwork, architectural and ornamental.....	8.17	.....	1.79	10.58	6.96	.....	.....	13.60
Lead smelting and refining.....	.....	.....	.....	.....	.....	.....	.....	.....
Leather, tanned, curried, and finished.....	.....	.....	.....	3.79	.....	.....	.....	.....
Liquors, malt.....	11.48	.....	2.63	9.46	4.35	.....	17.54	.....
Lumber and timber products.....	7.39	4.73	2.81	9.08	3.83	4.90	10.31	4.62
Lumber, planing mill products, including sash, doors, and blinds.....	8.04	.....	4.73	7.85	5.39	5.17	17.38	.....
Marble and stone work.....	8.94	.....	3.23	9.00	.....	4.08	10.81	.....
Masonry, brick and stone.....	9.77	.....	2.00	10.94	.....	2.92	20.35	.....
Mattresses and spring beds.....	6.81	5.71	.....	8.02	5.60	2.12	.....	.....
Millinery, custom work.....	16.04	4.29	1.77	11.40	4.75	2.63	.....	6.73
Painting, house, sign, etc.....	8.35	12.42	2.50	9.69	7.85	3.19	14.67	6.92
Paper and wood pulp.....	8.06	3.40	3.12	.....	.....	.....	.....	.....
Plumbing and gas- and steam-fitting.....	9.92	4.96	2.13	11.27	.....	3.37	16.40	.....
Printing and publishing, newspapers, books, and job, etc.....	9.02	4.85	2.27	10.35	5.50	1.85	14.52	7.44
Saddlery and harness.....	7.79	4.10	1.94	8.12	5.13	3.85	17.27	7.50
Slaughtering and meat packing, wholesale.....	8.46	6.60	3.12	8.85	6.49	4.00	17.85	11.12
Tinsmithing, coppersmithing, and sheet-iron working.....	8.96	2.62	3.62	8.73	6.00	2.19	17.33	.....
Tobacco: cigars, cigarettes, chewing, smoking, and snuff.....	9.02	5.00	2.44	9.39	4.85	2.73	15.33	11.19
Trunks and valises.....	7.31	.....	2.00	9.89	.....	.....	.....	.....
Woodenware not elsewhere specified.....	.....	.....	.....	.....	.....	.....	.....	.....
Woolen goods.....	6.04	3.71	3.58	7.62	4.39	3.10	.....	.....

TABLE VIII

Wages paid in specified industries in 1900

AVERAGE WEEKLY WAGES.

Children under Sixteen Years.	Montana.			North Dakota.			South Dakota.			Wisconsin.		
	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.
.10	\$15.52	\$6.71	\$5.21	\$10.29	\$5.72	\$2.47	\$10.13	\$4.60	\$2.96	\$8.64	\$4.20	\$3.02
.25	.....	.....	.....	.....	.....	.....	8.62	.....	.....	9.59	.....	4.67
.12	13.60	.....	3.85	9.21	.....	.....	5.58	.....	.....	7.73	5.50	2.46
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.65	2.50	3.65
.79	15.27	.....	4.10	8.77	.....	1.00	8.63	.....	.....	8.39	.....	2.92
.77	.....	.....	.....	.....	.....	.....	15.40	5.12	.....	8.12	3.46	1.79
.58	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.33	5.15	2.85
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.39	4.73	2.52
.25	14.04	4.27	4.62	7.79	4.60	.....	10.77	9.62	.....	8.71	3.02	2.85
.21	12.92	6.73	5.77	8.02	3.85	4.81	7.89	.....	.....	7.25	1.92	3.56
.75	18.79	.....	.....	11.08	.....	.....	10.81	.....	.....	9.27	3.46	2.10
.56	19.4	.....	.....	9.83	.....	.....	9.83	.....	.....	9.27	5.87	3.69
.60	12.31	.....	.....	10.36	.....	.....	13.10	.....	.....	10.25	7.35	.....
10.58	.....	.....	.....	11.42	.....	.....	10.10	.....	3.85	9.77	4.08	3.48
.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.48	4.02	2.65
.85	25.00	5.46	.....	.....	4.10	.....	.....	2.87	.....	15.39	3.73	1.35
.54	19.50	7.89	6.35	.....	.....	.....	5.67	5.71	3.46	7.06	3.25	2.56
.13	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.92	.....	3.27
17.06	10.10	8.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.89	14.89	.....	.....	10.29	.....	.....	10.12	.....	7.69	5.48	3.44	.....
.87	17.87	.....	6.00	12.71	.....	.....	8.19	.....	.....	9.83	6.12	3.60
.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.12	5.15	3.06
.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.65	4.29	3.17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.17	3.92	3.02
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.17	.....	.....
13.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.44	.....	3.94
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.29	4.50	2.65
.75	17.54	.....	6.46	.....	.....	.....	7.62	.....	6.40	10.71	5.31	3.29
.90	10.31	4.62	.....	4.81	.....	.....	0.83	.....	.....	8.50	4.29	4.02
.17	17.38	.....	8.08	.....	.....	.....	8.06	.....	.....	7.52	6.56	3.29
.08	10.81	.....	.....	.....	.....	.....	6.69	.....	.....	9.69	.....	.....
.92	20.35	.....	.....	12.73	.....	.....	10.85	.....	.....	9.85	3.23	2.71
.12	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.92	4.79	3.98
.63	.....	6.73	.....	.....	6.42	1.00	.....	4.00	2.00	4.48	4.31	1.71
.19	14.67	6.92	.....	9.94	.....	.....	9.10	.....	.....	8.58	3.85	3.20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.29	3.96	5.75
.37	16.40	.....	.....	11.96	.....	.....	9.00	.....	3.00	8.89	3.19	2.62
.85	14.52	7.44	2.71	9.77	6.52	2.31	9.37	3.17	3.46	9.54	5.10	2.02
.85	17.27	7.50	.....	9.31	.....	.....	8.52	.....	3.00	7.65	5.21	2.96
.00	17.85	11.12	.....	9.12	5.77	.....	.....	.....	.....	7.92	3.60	.....
.19	17.33	.....	.....	11.06	.....	.....	9.73	.....	.....	8.17	3.87	3.15
.73	15.33	11.19	3.75	8.77	7.02	3.17	9.02	3.17	3.46	8.87	4.23	2.44
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.62	4.90	2.90
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.87	.....	2.29
.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.39	4.73	2.87

TABLE VI.

Summary of wages, with per cent. of increase.

STATE.	TOTAL WAGES.		Per Cent. of Increase.
	1890.	1900.	
Iowa	\$20,429,620	\$23,931,680	17.1
Minnesota.....	30,371,123	35,484,825	16.8
Montana.....	1,652,413	7,969,886	382.3
North Dakota	759,132	1,222,472	61.0
South Dakota.....	832,693	1,544,409	85.5
Wisconsin.....	42,958,267	58,407,597	36.0

TABLE VII

Average annual wages.

STATE.	1890.			1900.		
	Men.	Women.	Children under Sixteen Years.	Men.	Women.	Children under Sixteen Years.
Iowa.....	\$435	\$193	\$120	\$452	\$214	\$143
Minnesota.....	452	287	129	492	257	161
Montana.....	698	584	237	807	349	271
North Dakota.....	524	273	172	535	298	128
South Dakota.....	431	258	102	530	239	145
Wisconsin.....	382	191	123	449	218	157

Minnesota paid the highest wages for all classes of wage-earners of the first group of states; Iowa paid higher wages to men in 1900 than Wisconsin, but the latter state paid better wages to women and children. Exceptionally high wages, not reached anywhere near by any other state, were paid in Montana, but here was also a notable decrease in women's wages. The same was the case in South Dakota, and for North Dakota a decrease in children's wages was shown.

A study of Table VIII will gain in interest if taken up in connection with Table V, which shows the number of wage-earners of each class in specified industries. Some of the average weekly wages for children, which are shown in the exhibit, will go a long way in support of the assertion that child labor is not desirable and is harmful to the child itself and also to the interests of adult wage-earners.

JULIUS MOERSCH.

ST. PAUL, MINN.